BRISBANE STAR

Cammell Laird

No 1027, 1029, 1026

Longitudinal Section

S. S. "Dunedin Star"

LIVERPOOL.

Report No. 106781

[illegible]

S. S. Melbourne Star

LIVERPOOL.

Report No. 104955

PLANS TRANSFERRED
TO SISTER VESSEL

S. S. Brisbane Star

RETAIN

003875-003883-0199

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18.3.35

Nº 1009. + 1014. 1016

LONGITUDINAL SECTION.

SCALE – 1/8" = 1 FOOT.

DIMENSIONS :- 522'-5" B.P. × 70'-0" MLD. × 43'-4½" MLD. TO UPPER DECK. (SHELTER DECK)

TO CLASS LLOYDS 100 A.1. WITH FREEBOARD & A DRAFT CORRESPONDING TO A COMPLETE SUPERSTRUCTURE VESSEL HAVING A TONNAGE OPENING.

FRAME 30.
FRAME 40.
SEE LATER SUBMISSION ON PLAN OF SHAFT TUNNEL & OIL FUEL TANKS
POOP DECK.
UPPER DECK.
2ND DECK.
3RD DECK.
CREWS ACCOMMODATION.
OVERFLOW
CARGO SPACE.
TUNNEL ESCAPE.
TONNAGE WELL
STEERING GEAR COMPARTMENT.
W.T. FLAT.
CASTING PLAN WILL BE SUBMITTED
PLAN OF AFTER END FRAMING WILL BE SUBMITTED.
FLOORS 48 THICK
WATER BALLAST
TUNNEL
RECESS.
TANK END.
GENERAL CARGO SPACE.
INSULATED CARGO SPACE. FUTURE CHILLED MEAT. (1½ TIERS)
BEAMS AS Nº 4 HOLD
Nº 6 CARGO HOLD. INSULATED.
Nº 5 CARGO HOLD. INSULATED
Nº 4 CARGO HOLD. INSULATED.
W.T. FLAT (WELDED PLATE COLLARS)
STIFFENING UNDER WINCHES TO SURVEYORS SATISFACTION.
BRINE ROOM.
SEPARATE PLAN OF OIL-FUEL BUNKERS WILL BE SUBMITTED.
OIL-FUEL TANKS AT CENTRE & SIDES.
OIL FUEL OR WATER BALLAST TANK.
Rise of tank top aft from 12" aft of frame 60 to 63.
MOTOR CASING.
MOTOR ROOM.
3RD DECK W.T. SIDE
SIDE STRINGER
OIL-FUEL BUNKER
SEPARATE PLAN WILL BE SUBMITTED
CARGO
L. & A.
STORES.
REFRIG. MACHY.
Scantlings of ~~IT IS IMPORTANT THAT~~ BEAMS MARKED ✗ approved on the assumption that they will ~~THUS MUST~~ NOT BE LOADED WITH GENERAL CARGO OVER AT THE SAME TIME AS CHILLED MEAT IS SUSPENDED FROM THEM.
BRIDGE DECK.
INSULATED CARGO SPACE. CHILLED MEAT.
Nº 3 CARGO HOLD. INSULATED.
Nº 2 CARGO HOLD. INSULATED.
and reverse angles 3½ × 3½ × .44 on alternate beams
SPECIAL STIFFENING ARRANGED UNDER MAST
STIFFENING UNDER WINCHES & MAST TO SURVEYORS SATISFACTION.
FRUIT CARGO SPACE. AIR COOLED, INSULATED.
SCANTLING OF BEAMS TO BE SUFFICIENT TO TAKE CHILLED MEAT LATER (ONE TIER)
CARGO SPACE. INSULATED.
3RD DECK MAY BE INTRODUCED LATER
Nº 1. CARGO HOLD. INSULATED.
STIFFENING UNDER WINDLASS TO SURVEYORS SATISFACTION.
F'C'LE DECK
STORES.
4TH DECK.
DOUBLE COPE
WATER BALLAST
OIL-FUEL TANK AT SIDES.
FRESH WATER OR WATER BALLAST
OIL-FUEL OR WATER BALLAST.
EXTENT OF DUCT KEEL.
34" FRAME SPACING
27" FRAME SPACING
24" FRAME SPACING
MAIN FRAMES 9" × 3½" × 3½" × .38/.54 C TO UPPER & POOP DECK ALTERNATELY.
INTERMEDIATE FRAMES IN POOP 4" × 3½" × .40 ANGLES ON ALTERNATE FRAMES
MAIN FRAMES 10" × 3½" × 3½" × .44/.56 CHAN. TO 3RD DECK. FRAMES 9" × 3½" × 3½" × .38/.54 CHAN. SCARPHED 18" BELOW 3RD DECK TO UPPER DECK.
MAIN FRAMES 9" × 3½" × 3½" × .38/.54 CH. TO UPPER DK.
MAIN FRAMES 9" × 3½" × 3½" × .38/.54 C TO UPPER & BRIDGE DECK ALTERNATELY. WITH 4" × 3½" × .38 REVERSES ON EVERY FRAME TO 3RD DECK.
INTERMEDIATE FRAMES IN BRIDGE 4" × 3½" × .40 ON ALTERNATE FRAMES (SCARPHED 18" BELOW UPPER DECK)
MAIN FRAMES 9" × 3½" × 3½" × .44/.54 C TO UPPER & BRIDGE DECK ALTERNATELY, WITH 4" × 3½" × .44 REVERSES ON ALTERNATE FRAMES TO 3RD DECK.
Nos 2 & 3 HOLDS.
Nos 1014 + 1016 O.F. Bkd. at frame 93. W.T. Floor at frame 93. Stiffened Bkd. at frame 93.
Nos 1014 + 1016 Bkd. at frame 150. W.T. Floor at frame 150.
MAIN FRAMES 10" × 4" × 4" × .60/.60 C
INTERMEDIATE ALTERNATE FRAMES 7" × 3½" × .42 ANG. SCARPHED 18" BELOW UPPER DECK.
FRAMES 8" × 3½" × .42 B.A. TO UPPER & F'C'LE D'K ALTERNATELY WELDED PLATE COLLARS AT W.T. FLAT

TNº 2.

S.J.

Lloyds Register 8/2/35
Harland & Wolff 21.3.35
Lloyds Register 21.3.35

Cammell Laird & Co
No 1016

Midship Section
(as built)

S.S. Brisbane Star
LIVERPOOL.
Report No. 108319.

RETAIN

W1199-0024

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Lloyd's Register
Foundation

№ 1016. M.V. "BRISBANE STAR."

MIDSHIP SECTION.

SCALE ½" = 1 FOOT.

DIMENSIONS:- 522'-5" B.P. × 70'-0" MLD. × 43'-4½" MLD. SHELT. DK.

TO CLASS 100 A1 WITH FREEBOARD & A DRAFT CORRESPONDING TO A COMPLETE SUPERSTRUCTURE VESSEL HAVING A TONNAGE OPENING.

IMPORTANT.
BULB ANGLES ARE 1904 STANDARD.
CHANNELS " 1904 "
EXCEPT WHERE OTHERWISE INDICATED.

RIVETING;-

KEEL PLATE BUTTS LAPPED & QUADE RIVETED THRO'OUT, QUINE FOR ½ LENGTH IN WAY OF DUCT KEEL.

CENTRE GIRDER. BUTTS TREBLE RIVETED. OVERLAPPED THRO'OUT.

TANK TOP CENTRE STRAKE T.R. OVERLAPPED THRO'OUT.

" " REMAINDER OF PLATING LAPPED & T.R. FOR ½ LENGTH TO D.R. AT ENDS.

" " MARGIN BUTTS OVERLAPPED & T.R. THRO'OUT.

SHELL PLATING BUTTS OVERLAPPED Q.R. to T.R. AT ENDS. QUINE WHERE ·88" SHEERSTRAKE.

" " " "A, B, & C" STRAKES WHERE ·80" THK. FOR'D END Q.R.

FRAMES TO SHELL, RIVS. SPACED 6 DIARS. APART CLEAR OF O.F. BUNKERS & PEAK TANKS.

" " " IN WAY OF O.F. BUNKERS & DEEP TANKS, RIVS SPACED 5½ DIARS. APART.

" " " FOR'D. OF ½ LENGTH & TO LOWER DECK RIVS. SPACED 5½ DIARS. APART.

" " " IN WAY OF 27" & 24" FR. SPAC. & CLEAR OF PANTING AREA & PEAK TANK, RIVS. SPACED 7 DIARS. APART.

FOR RIVETING OF DECK STRINGERS & PLATING SEE PLAN OF "PROFILE & DECKS"

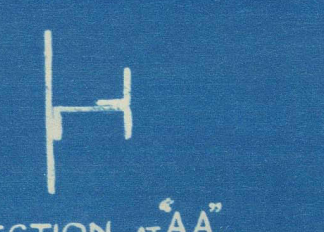
" " " SHEERSTRAKE & TOPSIDE SEE "SHELL EXPANSION"

OWNERS EXTRA SCANTLINGS, WHICH ARE:~

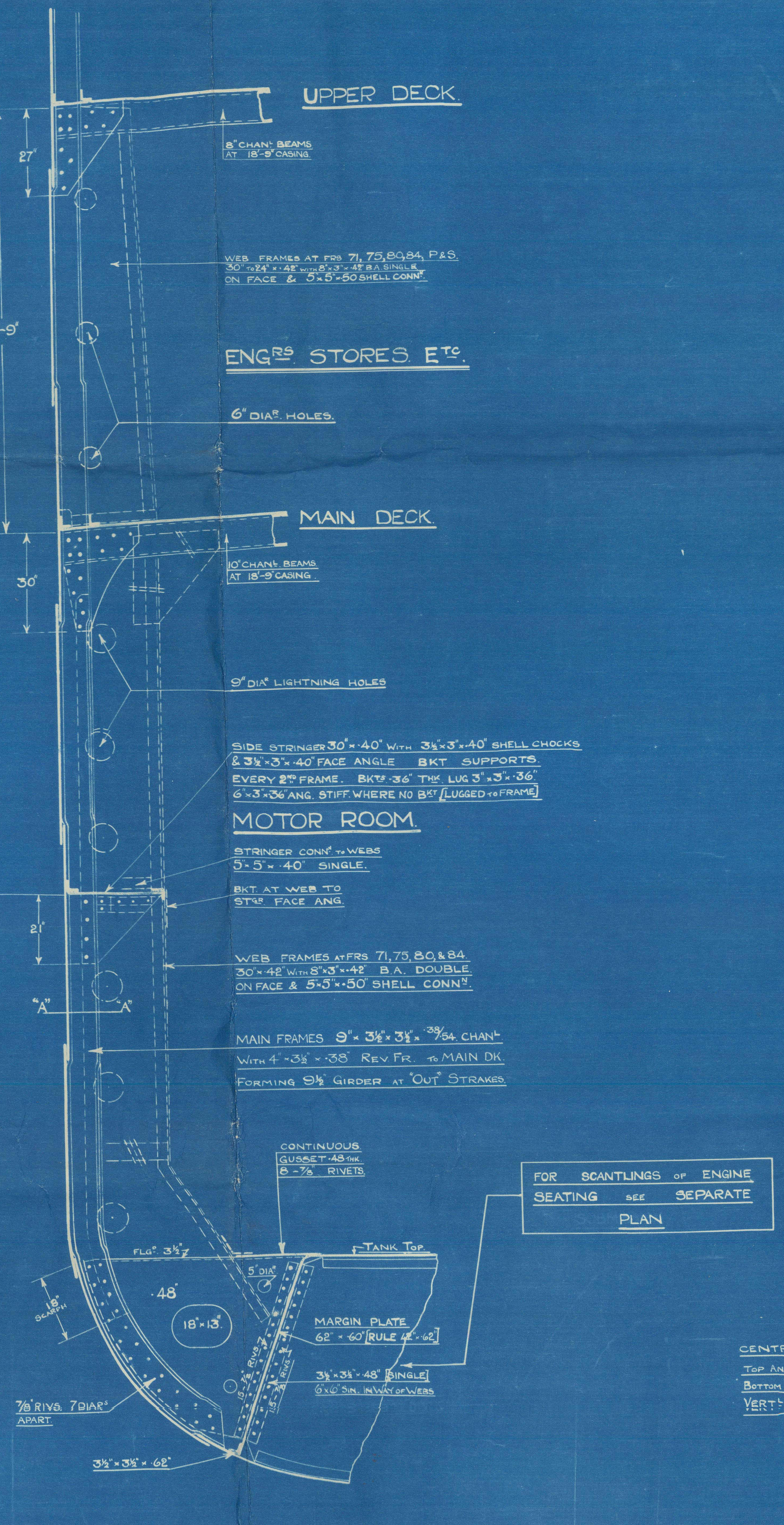
BRIDGE DECK SHEERSTRAKE	1/20"	FOR	½	LENGTH	SHELL
" " STRAKE BELOW	"	"	"	"	
SHELTER " SHEERSTRAKE [CLEAR OF BRIDGE DK]	"	"	"	"	
" " STRAKE BELOW	"	"	"	"	
TWO BILGE STRAKES	"	"	¾	"	
ONE STRAKE ABOVE BILGE	2/20"	"	¾	"	

BRIDGE DECK STRINGER & DECK PLATING 1/20"
SHELTER " " " " " OUTSIDE
BRIDGE INCREASED AN EQUIVALENT OF 1/20" FOR ¾ LENGTH ALSO.
INSIDE BRIDGE DK. FOR ⅓ BREADTH OF SHIP AT EACH END~.
DECKS.

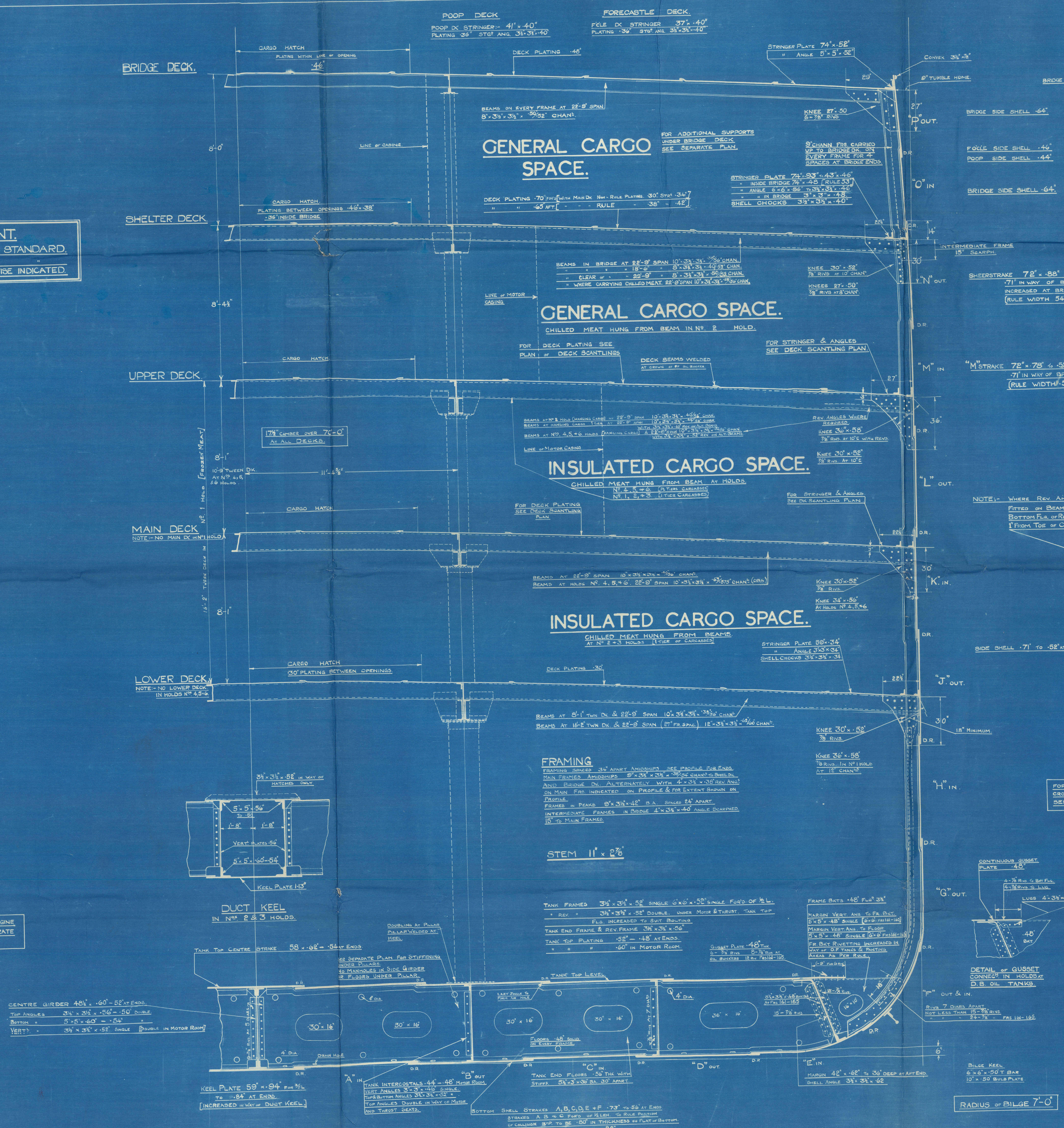
CAMMELL LAIRD & Co LTD
BIRKENHEAD.
Lloyds Register
DATE 14/12/36.
SHIP DEPARTMENT.

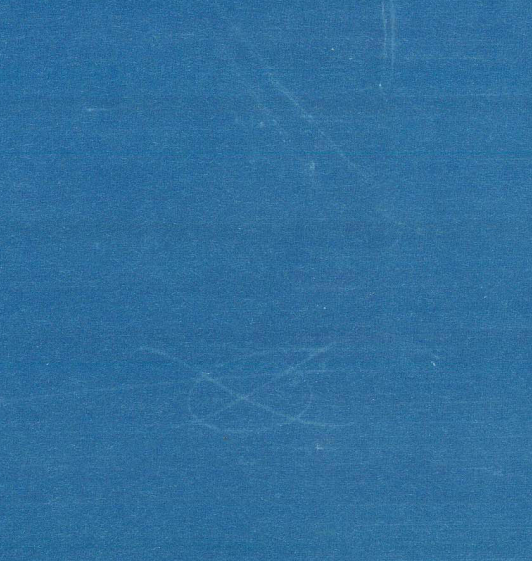


SECTION AT "AA".

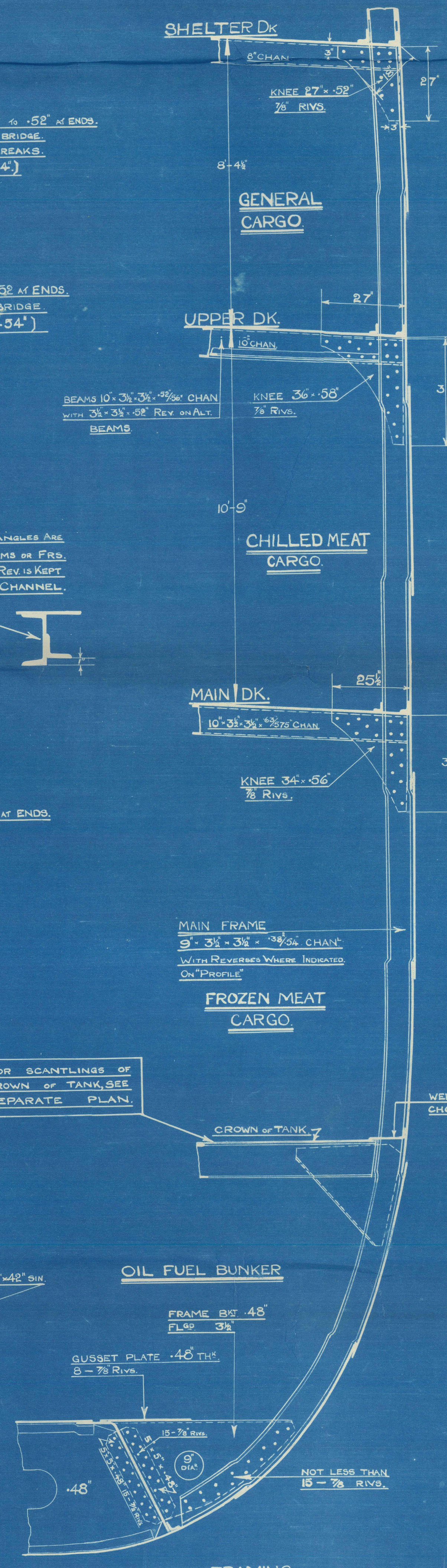

UPPER DECK.
8" CHANL. BEAMS AT 18'-9" CASING.
27"
WEB FRAMES AT FRS 71, 75, 80, 84, P&S. 30" TO 24" × ·42" WITH 8"×3"×·42" B.A. SINGLE ON FACE & 5"×5"×·50 SHELL CONNN.
10'-9"
ENGRS. STORES ETC.
6" DIAR. HOLES.
MAIN DECK.
10" CHANL. BEAMS AT 18'-9" CASING.
30"
9" DIAR LIGHTNING HOLES
SIDE STRINGER 30"×·40" WITH 3½"×3"×·40" SHELL CHOCKS & 3½"×3"×·40" FACE ANGLE BKT SUPPORTS. EVERY 2ND FRAME. BKTS. ·36" THK. LUG 3"×3"×·36". 6"×3"×·36" ANG. STIFF. WHERE NO BKT [LUGGED TO FRAME]
MOTOR ROOM.
STRINGER CONNN. TO WEBS 5"×5"×·40" SINGLE.
BKT. AT WEB TO STGR. FACE ANG.
21"
WEB FRAMES AT FRS 71, 75, 80, & 84. 30"×·42" WITH 8"×3"×·42" B.A. DOUBLE. ON FACE & 5"×5"×·50" SHELL CONNN.
"A" "A"
MAIN FRAMES 9"×3½"×3½"×·38/54 CHANL WITH 4"×3½"×·38" REV. FR. TO MAIN DK. FORMING 9½" GIRDER AT "OUT" STRAKES.
CONTINUOUS GUSSET ·48 THK. 8-⅞" RIVETS.
FOR SCANTLINGS OF ENGINE SEATING SEE SEPARATE PLAN
FLGD. 3½"
TANK TOP.
5" DIA.
·48"
18"×13"
18" SCARPH
MARGIN PLATE 62"×·60" [RULE 42"×·62"]
15-⅞" RIVS
3½"×3½"×·48" [SINGLE] 6"×6" SIN. IN WAY OF WEBS
⅞" RIVS. 7 DIARS APART.
3½"×3½"×·62"

SECTION SHOWING SIDE FRAMING & WEBS IN MOTOR ROOM.


POOP DECK
POOP DK STRINGER:- 41"×·40" PLATING ·36" STGR. ANG. 3½"×3½"×·40"
FORECASTLE DECK.
F'C'LE DK STRINGER 37"×·40" PLATING ·36" STGR. ANG. 3½"×3½"×·40"
BRIDGE DECK.
CARGO HATCH
PLATING WITHIN LINE OF OPENING ·46"
DECK PLATING ·48"
STRINGER PLATE 74"×·52" " ANGLE 5"×5"×·52"
CONVEX 3½"×⅞"
9" TUMBLE HOME.
29"
BEAMS ON EVERY FRAME AT 22'-9" SPAN 8"×3½"×3½"×·50/52" CHANL.
KNEE 27"×·50 6-⅞" RIVS
27"
"P" OUT.
BRIDGE SIDE SHELL ·64".
8'-0"
LINE OF CASING.
GENERAL CARGO SPACE.
FOR ADDITIONAL SUPPORTS UNDER BRIDGE DECK SEE SEPARATE PLAN.
9" CHANN FRS. CARRIED UP TO BRIDGE DK. ON EVERY FRAME FOR 4 SPACES AT BRIDGE ENDS.
D.R.
F'C'LE SIDE SHELL ·46"
POOP SIDE SHELL ·44"
STRINGER PLATE 74"×·93" to 43"×·46"
" INSIDE BRIDGE 74"×·48 [RULE 53"]
" ANGLE 6"×6"×·86" to 3½"×3½"×·46"
" " IN BRIDGE 3"×3"×·48.
SHELL CHOCKS 3½"×3½"×·40"
"O" IN
BRIDGE SIDE SHELL ·64".
CARGO HATCH.
PLATING BETWEEN OPENINGS ·46"×·38" ·36" INSIDE BRIDGE
DECK PLATING ·70" FOR'D [WITH MAIN DK NON-RULE PLATING. ·30" STRG ·34"]
" " ·65" AFT. [" " RULE " ·38" " ·42"]
SHELTER DECK.
22½"
D.R.
14"
INTERMEDIATE FRAME 15" SCARPH.
30"
BEAMS IN BRIDGE AT 22'-9" SPAN 10"×3½"×3½"×·38/56" CHAN.
" " " " 18'-6" " 8"×3½"×3½"×·40/52" CHAN.
" CLEAR OF " " 22'-9" " 8"×3½"×3½"×·50/52 CHAN.
" WHERE CARRYING CHILLED MEAT. 22'-9" SPAN 10"×3½"×3½"×·58/56" CHAN.
KNEE 30"×·52" ⅞" RIVS AT 10" CHANL.
"N" OUT.
KNEES 27"×·50" ⅞" RIVS AT 8" CHANL.
SHEERSTRAKE 72"×·88" to ·52" AT ENDS. ·71" IN WAY OF BRIDGE. INCREASED AT BREAKS. (RULE WIDTH 54".)
8'-4½"
LINE OF MOTOR CASING
GENERAL CARGO SPACE.
CHILLED MEAT HUNG FROM BEAM IN No. 2 HOLD.
FOR DECK PLATING SEE PLAN OF DECK SCANTLINGS
DECK SEAMS WELDED AT CROWN OF OF OIL BUNKER.
FOR STRINGER & ANGLES SEE DECK SCANTLING PLAN.
"M" IN
"M" STRAKE 72"×·78" to ·52 AT ENDS. ·71" IN WAY OF BRIDGE. (RULE WIDTH ·54")
CARGO HATCH.
UPPER DECK.
27"
3"
36"
17½" CAMBER OVER 70'-0" AT ALL DECKS.
BEAMS AT No 2 HOLD [HANGING CARGO] AT 22'-9" SPAN 10"×3½"×3½"×·40/56" CHAN.
BEAMS AT HANGING CARGO 1 TIER AT 22'-9" SPAN 10"×3½"×3½"×·44/56" CHAN WITH 3½"×3½"×·40" REV. ON ALT. BEAMS
BEAMS AT NOS. 4, 5, & 6. HOLDS [HANGING CARGO] & 22'-9" SPAN 10"×3½"×3½"×·52/56" CHAN. WITH 3½"×3½"×·52" REV. ON ALT. BEAMS.
REV. ANGLES WHERE REQUIRED.
KNEE 36"×·58" ⅞" RIVS. AT 10"C WITH REVS.
KNEE 30"×·52" ⅞" RIVS. AT 10"C
LINE OF MOTOR CASING
8'-1"
10'-9" TWEEN DK. AT NOS. 4, 5, & 6 HOLDS.
11'-4⅝"
No. 1 HOLD [FROZEN MEAT]
16'-2" TWEEN DECK IN
INSULATED CARGO SPACE.
CHILLED MEAT HUNG FROM BEAM AT HOLDS. No. 4, 5, & 6. [1½ TIERS CARCASSES] No. 1, 2, & 3. [1 TIER CARCASSES]
"L" OUT.
FOR STRINGER & ANGLES. SEE DK SCANTLING PLAN.
NOTE;- WHERE REV. ANGLES ARE FITTED ON BEAMS OR FRS. BOTTOM FLG. OF REV. IS KEPT 1" FROM TOE OF CHANNEL.
CARGO HATCH
FOR DECK PLATING SEE DECK SCANTLING PLAN
MAIN DECK
NOTE:- NO MAIN DK IN No 1 HOLD
BEAMS AT 22'-9" SPAN 10"×3½"×3½"×·40/56" CHANL.
BEAMS AT HOLDS No. 4, 5, & 6. 22'-9" SPAN 10"×3½"×3½"×·63/575" CHANL. (OBS.)
KNEE 30"×·52" ⅞" RIVS.
"K" IN.
KNEE 34"×·56" AT HOLDS No. 4, 5, & 6
8'-1"
INSULATED CARGO SPACE.
CHILLED MEAT HUNG FROM BEAMS. AT No 2 & 3 HOLDS [1 TIER OF CARCASSES]
STRINGER PLATE 59"×·34" " ANGLE 3"×3"×·34" SHELL CHOCKS 3½"×3½"×·34.
SIDE SHELL ·71" TO ·52" AT ENDS.
CARGO HATCH
·30" PLATING BETWEEN OPENINGS.
DECK PLATING ·30"
LOWER DECK.
NOTE:- NO LOWER DECK IN HOLDS NOS. 4, 5 & 6.
"J" OUT.
BEAMS AT 8'-1" TWN DK. & 22'-9" SPAN 10"×3½"×3½"×·38/56" CHANL.
BEAMS AT 16'-2" TWN DK. & 22'-9" SPAN (27" FR. SPAC.) 12"×3½"×3½"×·62/60" CHANL.
KNEE 30"×·52" ⅞" RIVS.
18" MINIMUM.
KNEE 36"×·58" ⅞ RIVS. IN No 1 HOLD AT 12" CHANLS.
FRAMING
FRAMING SPACED 34" APART AMIDSHIPS SEE PROFILE FOR ENDS.
MAIN FRAMES AMIDSHIPS 9"×3½"×3½"×·38/54" CHANLS TO SHEL. DK.
AND BRIDGE DK. ALTERNATELY WITH 4"×3½"×·38" REV. ANGS ON MAIN FRS. INDICATED ON PROFILE & FOR EXTENT SHOWN ON PROFILE
FRAMES IN PEAKS 9"×3½"×·42" B.A. SPACED 24" APART.
INTERMEDIATE FRAMES IN BRIDGE 4"×3½"×·40" ANGLE SCARPHED. 15" TO MAIN FRAMES.
"H" IN.
STEM 11"×2⅞"
3½"×3½"×·52" IN WAY OF HATCHES ONLY
5"×5"×·56" TO ·50
1'-8" 1'-8"
VERTL. PLATES ·56"
5"×5"×·60"-·54"
KEEL PLATE 1·13"
DUCT KEEL IN NOS. 2 & 3 HOLDS.
CONTINUOUS GUSSET. PLATE ·48".
4-⅞" RIVS. TO BKT FLG.
4-⅞" RIVS TO LUG
LUGS 4"×3½"×·42" SIN.
·48" BKT.
"G" OUT.
DETAIL OF GUSSET CONNECN. IN HOLDS AT D.B. OIL TANKS.
TANK FRAMES 3½"×3½"×·52" SINGLE 6"×6"×·52" SINGLE FOR'D OF ½L.
" REV. " 3½"×3½"×·52" DOUBLE. UNDER MOTOR & THRUST. TANK TOP FLG. INCREASED TO SUIT BOLTING
TANK END FRAME & REV. FRAME 3½"×3½"×·56"
TANK TOP PLATING ·52"-·48" AT ENDS.
" " " ·60" IN MOTOR ROOM.
FRAME BKTS ·48" FLGD. 3½"
MARGIN VERT. ANG. TO FR. BKT. 5"×5"×·48" SINGLE [6"×6" FRS 161-165]
MARGIN VERT. ANG. TO FLOOR 5"×5"×·48" SINGLE [6"×6" FRS 161-165]
FR. BKT. RIVETTING INCREASED IN WAY OF O.F. TANKS & PANTING AREAS AS PER RULE.
GUSSET PLATE ·48" THK 6-⅞" RIVS 8-⅞" RIVS AT OIL BUNKERS 12 RIV. FRS 161-165.
1'-9" FOR 6 RIV.
DOUBLING AT PILLAR PILLAR WELDED AT HEEL.
TANK TOP CENTRE STRAKE 58×·62"-·54 AT ENDS.
SEE SEPARATE PLAN FOR STIFFENING UNDER PILLARS. NO MANHOLES IN SIDE GIRDER OR FLOORS UNDER PILLAR.
TANK TOP LEVEL.
D.R.
LAZY JOGGLE TO FORM AIR HOLE
4" DIA
30"×16"
36"×16"
16"×10"
9-⅞" RIVS. AT 5 DIARS.
7/8" RIVS AT 7 DIARS
15-⅞" RIVS.
3½"×3½"×·48" BACK BAR AT FRS 161-165
15-⅞" RIVS
18"
4" DIA.
DRAIN HOLE
FLOORS ·48" SOLID ON EVERY FRAME.
"F" OUT & IN.
RIVS 7 DIARS APART NOT LESS THAN 15-⅞" RIVS. " " " 24-⅞" " FRS 161-165.
6"
CENTRE GIRDER 48½"×·60"-52" AT ENDS.
TOP ANGLES 3½"×3½"×·56"-·50" DOUBLE.
BOTTOM " 5"×5"×·60"-·54" "
VERTL. " 3½"×3½"×·52" SINGLE [DOUBLE IN MOTOR ROOM]
KEEL PLATE 59"×·94" FOR ⅗L TO ·84" AT ENDS. [INCREASED IN WAY OF DUCT KEEL.]
"A" IN.
"B" OUT
TANK INTERCOSTALS ·44"-·48" MOTOR ROOM.
VERT ANGLES 3"×3"×·46" SINGLE.
TOP & BOTTOM ANGLES 3½"×3½"×·52" "
TOP ANGLES DOUBLE IN WAY OF MOTOR AND THRUST SEATS.
"C" IN.
TANK END FLOORS ·56" THK WITH STIFFS. 5½"×3"×·36" BA. 30" APART.
"D" OUT.
"E" IN.
MARGIN 42"×·62" TO 36" DEEP AT AFT END.
SHELL ANGLE 3½"×3½"×·62
BOTTOM SHELL STRAKES A, B, C, D, E & F ·73" TO ·56" AT ENDS. STRAKES A B & C FOR'D OF ½ LEN. TO RULE POSITION OF COLLISION BHD. TO BE ·80" IN THICKNESS ON FLAT OF BOTTOM. BOSS PLATING ·82"
BILGE KEEL 6"×6"×·50" T. BAR 10"×·50" BULB PLATE.
RADIUS OF BILGE 7'-0"


BRIDGE DK
8"C
3"
29"
27"
KNEE ·50" ⅞" RIVS.
4"×3½"×OA. INTERMEDIATE FR.

DETAIL OF BEAM KNEES. AT INTERMEDIATE FRS.


SHELTER DK
8" CHAN.
3"
KNEE 27"×·52" ⅞" RIVS.
27"
8'-4½"
GENERAL CARGO.
UPPER DK.
27"
10" CHAN.
BEAMS 10"×3½"×3½"×·52/56" CHAN WITH 3½"×3½"×·52" REV. ON ALT. BEAMS.
KNEE 36"×·58" ⅞" RIVS.
36"
10'-9"
CHILLED MEAT CARGO.
MAIN DK.
25½"
10"×3½"×3½"×·63/575" CHAN.
KNEE 34"×·56" ⅞" RIVS.
34"
MAIN FRAME 9"×3½"×3½"×·38/54" CHANL. WITH REVERSES WHERE INDICATED. ON "PROFILE"
FROZEN MEAT CARGO.
FOR SCANTLINGS OF CROWN OF TANK, SEE SEPARATE PLAN.
CROWN OF TANK.
WELDED PLATE CHOCKS.
OIL FUEL BUNKER
FRAME BKT ·48" FLGD. 3½"
GUSSET PLATE ·48" THK. 8-⅞" RIVS.
15-⅞" RIVS.
5"×5"×·48"
9" DIAR.
·48"
NOT LESS THAN 15-⅞ RIVS.

SECTION SHOWING FRAMING IN WAY OF 10'-9" 'TWEEN DECK AFT.

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Cammell Laird & Co
No. 1009, 1014, 1016.

Sternframe & boss

~~Wreck Section~~
186

S. S. "Dunedin Star"
LIVERPOOL.
Report No. 106781.

S. S. Melbourne Star
LIVERPOOL.
Report No. 107955.

PLANS TRANSFERRED
TO SISTER VESSEL

S. S. Brisbane Star
LIVERPOOL.
Report No. 108319

003875-003883-0201

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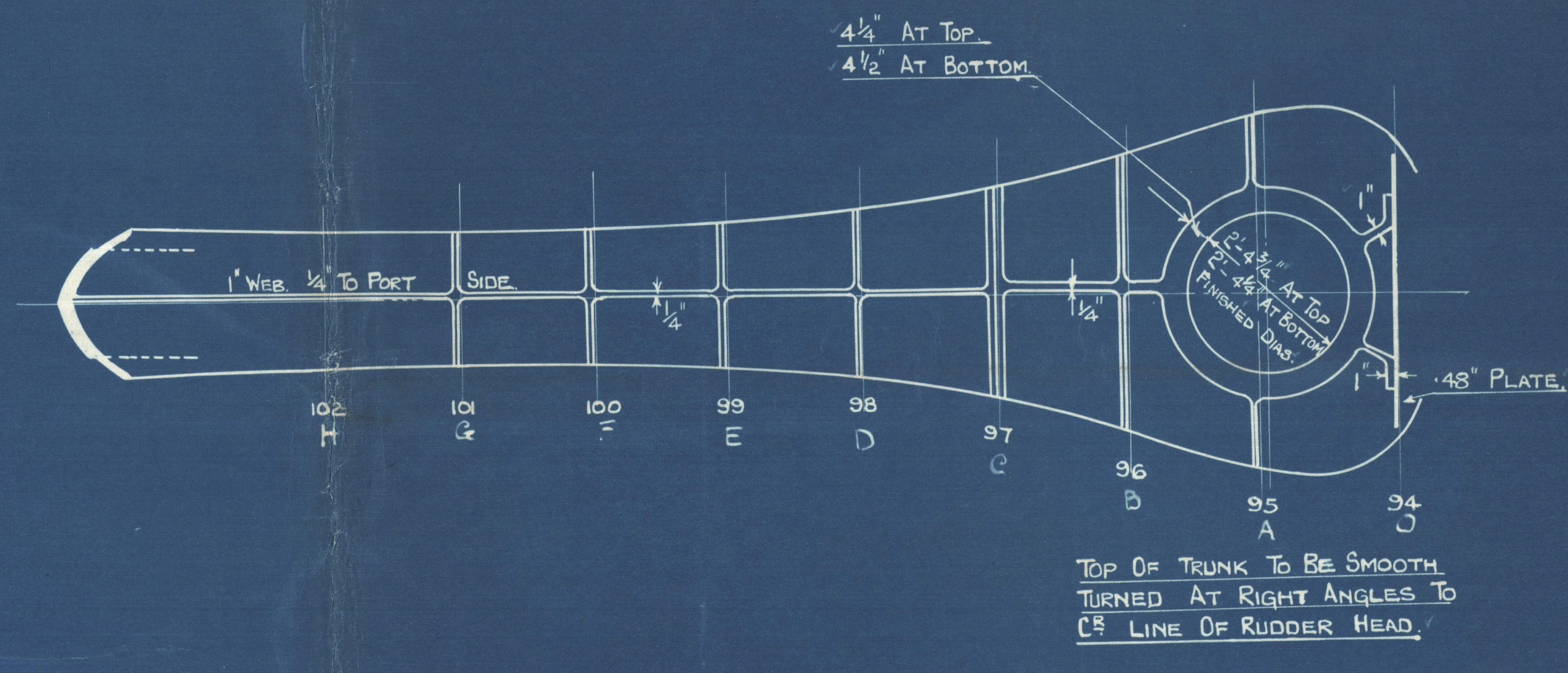
8

13.2.35

No. 1009 STERNFRAME & BOSS ARMS.

1014
1016

SCALES:- 1/2" & 3" = 1 FOOT.


4 1/2" At Top
4 1/2" At Bottom
1" Web 3/4" To Port Side
48" Plate
102 H
101 G
100 F
99 E
98 D
97 C
96 B
95 A
94 O
Top Of Trunk To Be Smooth
Turned At Right Angles To
C.L. Line Of Rudder Head.

NOTES:-

Holes To Be Drilled 1/16" Larger Than Dia. Of Rivet Shown.

Gudgeons Bored For Pintles & Lignum Vitæ Bushing, With Bronze Ring & Steel Washer To Supplied & Fitted Complete By Contractor.

Holes In Gudgeons To Be Accurately Bored & Carefully Aligned From Top To Bottom To Ensure Correct Adjustment Of Rudder

Frame & Boss Arms To Be Bolted Together At Contractors Works, Carefully. Checked & Then Taken Apart.

Drawings Of Full Size Sections To Be Worked To In Preference To This Plan

Care To Be Taken That Thickness Of Metal As Shown On Sections Are Adhered To.

Lock To Prevent Rudder Lifting To Be Supplied & Fitted Complete By Contractors.

DIA OF TAIL SHAFT — — 1'-2 5/8" — — APPROXIMATE 15"

MATERIAL:-

Sternframe & Boss Arms	Cast Steel
Pintles	Forged Steel

To Pass Lloyds Tests & Requirements.

PARTICULARS OF SHAFTING.

Height Of C.L. Of Shaft At 10'-0" Aft Of Fr. 8 Aft.	8'-9"
Half Breadth To C.L. " " " " " " " "	9'-0"
Height To C.L. Of " " Propeller Tips (6'-0" For.d Of A.P.)	9'-6"
Half Breadth To C.L. " " " (" " ")	12'-0"
Rake Per Foot Down From Propeller	·0407"
Rake " " Inboard " "	·1626"

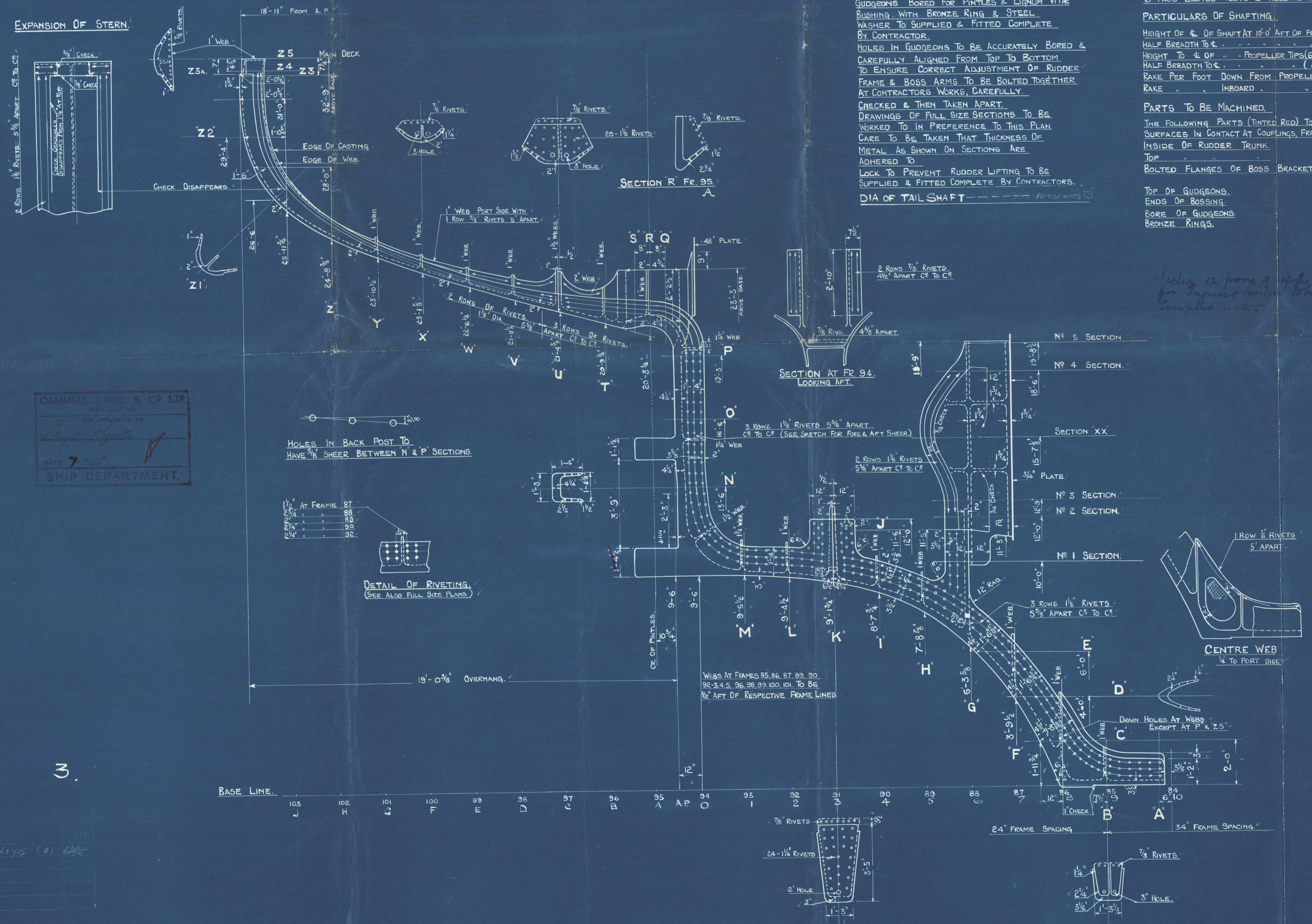
Approximate

PARTS TO BE MACHINED.

The Following Parts (Tinted Red) To Be Machined
Surfaces In Contact At Couplings, Frames 88, 91, 96. Aft.
Inside Of Rudder Trunk.
Top " " "
Bolted Flanges Of Boss Bracket On C.L.

Top Of Gudgeons.
Ends Of Bossing.
Bore Of Gudgeons.
Bronze Rings.

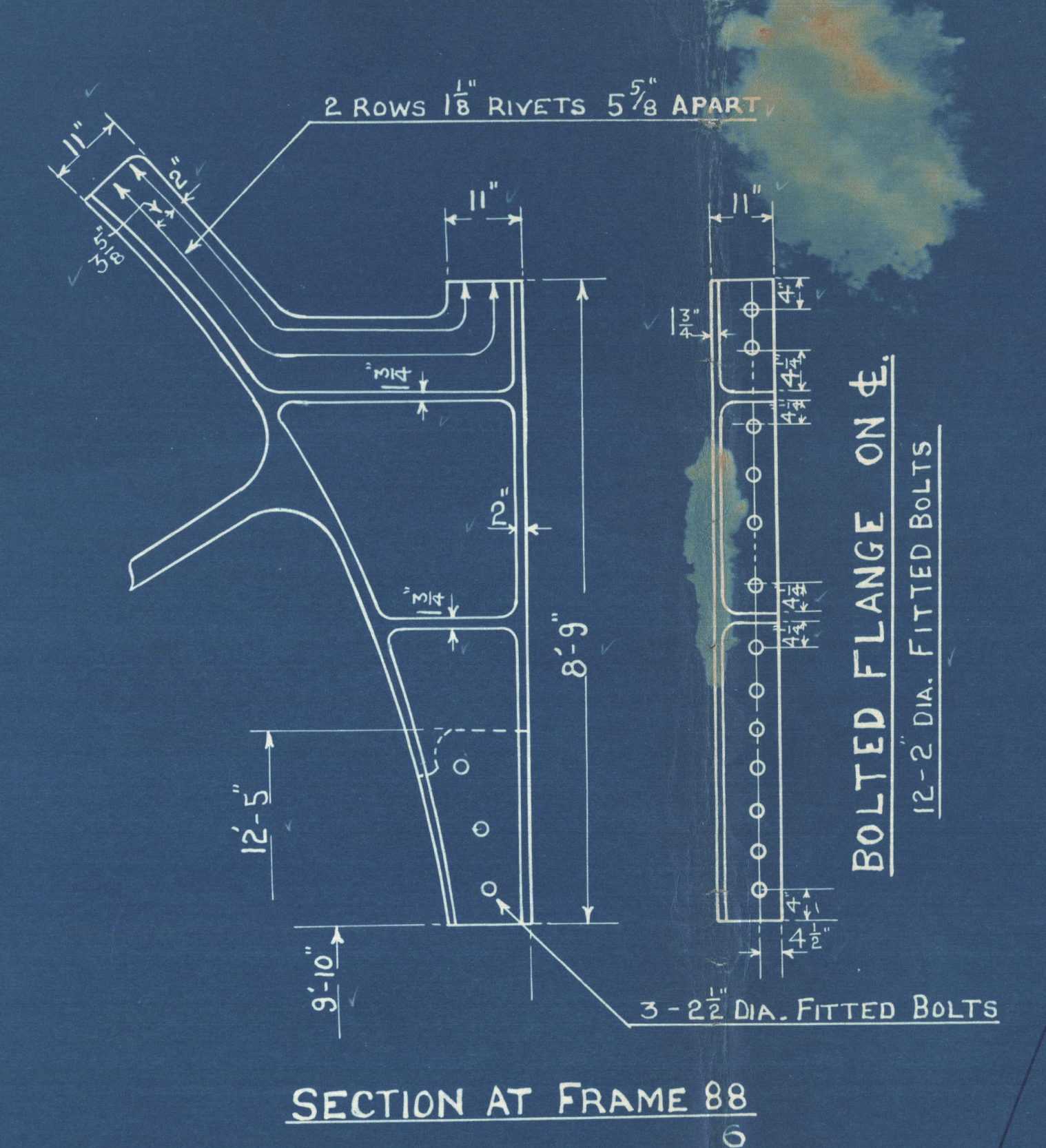
Section 12 para 9 of the Rules for Engines & Boilers to be complied with.


Expansion Of Stern
3/4" Check
2 Rows 1/8" Rivets 5 5/8" Apart C.s To C.s
Check Disappears
18'-11" From A.P.
1" Web
Z5
Z4
Z3
Z3A
Z2
Z1
Main Deck
Edge Of Casting
Edge Of Web
7/8" Rivets
3" Hole
20-1 1/8" Rivets
Section 'R' Fr. 95
1" Web Port Side With 1 Row 7/8" Rivets 5" Apart
2 Rows 1 1/8" Rivets
48" Plate
S R Q
Z Y X W V U T
P
O
N
J
M L K I H G F E D C B A
2 Rows 7/8" Rivets 4 1/2" Apart C.s To C.s
Section At Fr 94 Looking Aft.
No. 5 Section
No. 4 Section
Section 'XX'
3/4" Plate
No. 3 Section
No. 2 Section
No. 1 Section
2 Rows 1 1/8" Rivets 5 5/8" Apart C.s To C.s (See Sketch For Fore & Aft Sheer)
2 Rows 1 1/8" Rivets 5 5/8" Apart C.s To C.s
3 Rows 1 1/8" Rivets 5 5/8" Apart C.s To C.s
Holes In Back Post To Have 5/8" Sheer Between N & P Sections
Detail Of Riveting (See Also Full Size Plans)
At Frame 87
1 Row 1 1/8" Rivets 5" Apart
Centre Web 1/4 To Port Side
Down Holes At Webs Except At P & Z5
19'-0 5/8" Overhang
Webs At Frames 85, 86, 87, 89, 90, 92-3-4-5, 96, 98, 99, 100, 101. To Be 1/2" Aft Of Respective Frame Lines
Base Line.
103 J
102 H
101 G
100 F
99 E
98 D
97 C
96 B
95 A
94 A.P. O
93 1
92 2
91 3
90 4
89 5
88 6
87 7
86 8
85
24" Frame Spacing
34" Frame Spacing
7/8" Rivets
24-1 1/8" Rivets
2" Hole
7/8" Rivets
3" Hole
1" Check

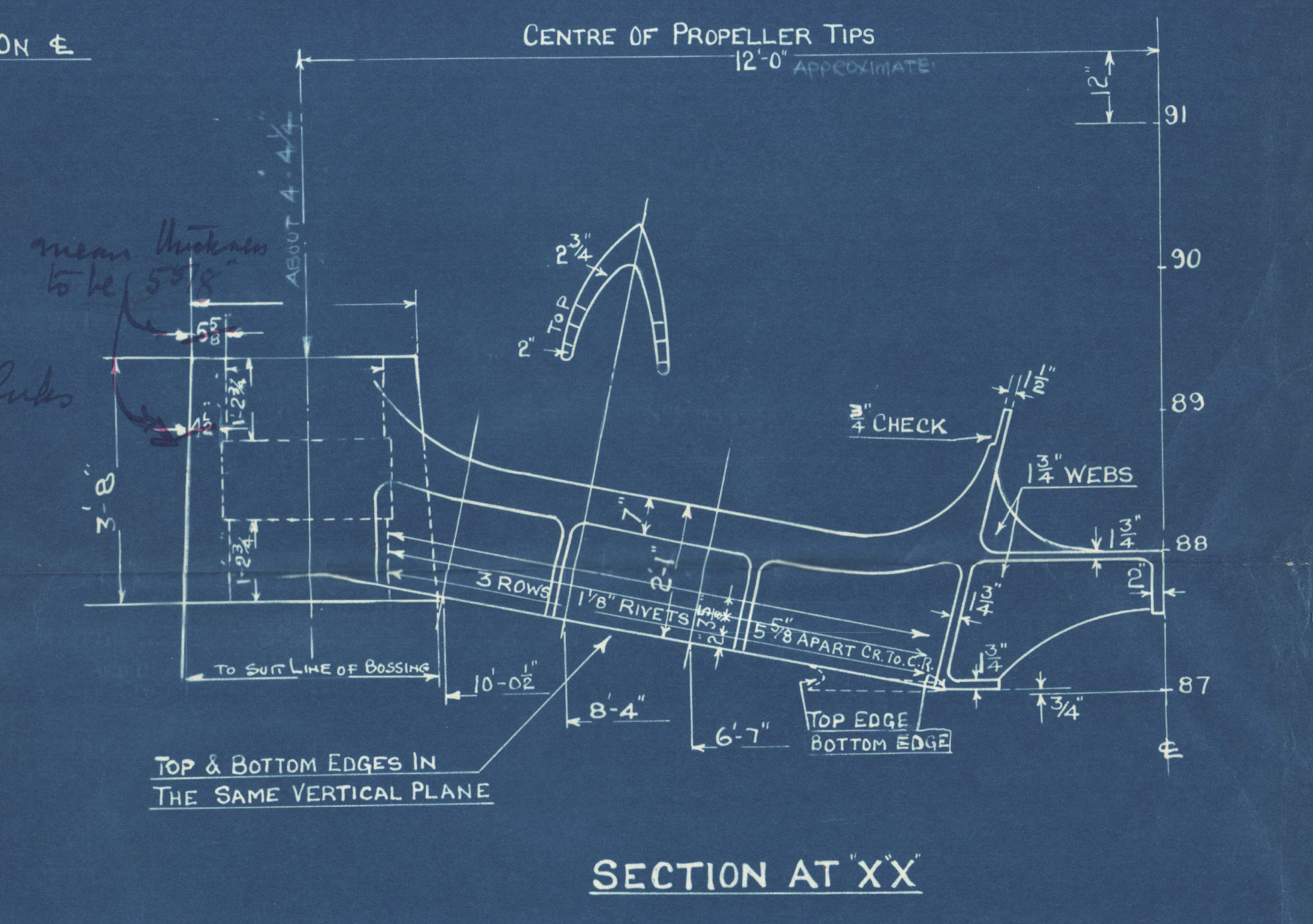
3.

[illegible]	DATE
LLOYDS (3)	6/2/35

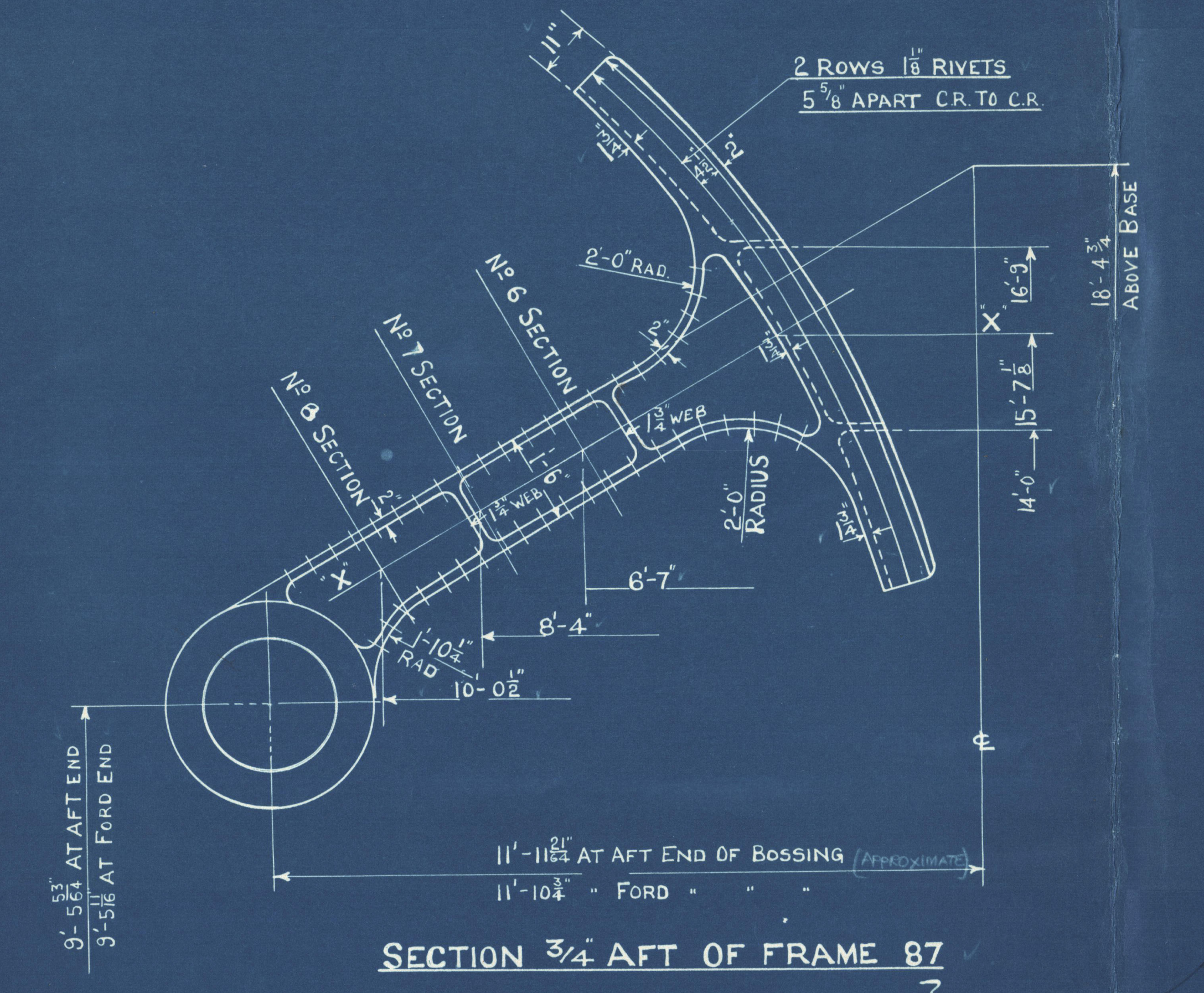
CAMMELL LAIRD & CO LTD
BIRKENHEAD.
FOR ENCLOSURE TO
Lloyds Register
DATE 7.2.35
SHIP DEPARTMENT.


2 Rows 1 1/8" Rivets 5 5/8" Apart
11"
8'-9"
12'-5"
3'-10"
Bolted Flange On C.L.
12-2" Dia. Fitted Bolts
3-2 3/8" Dia. Fitted Bolts

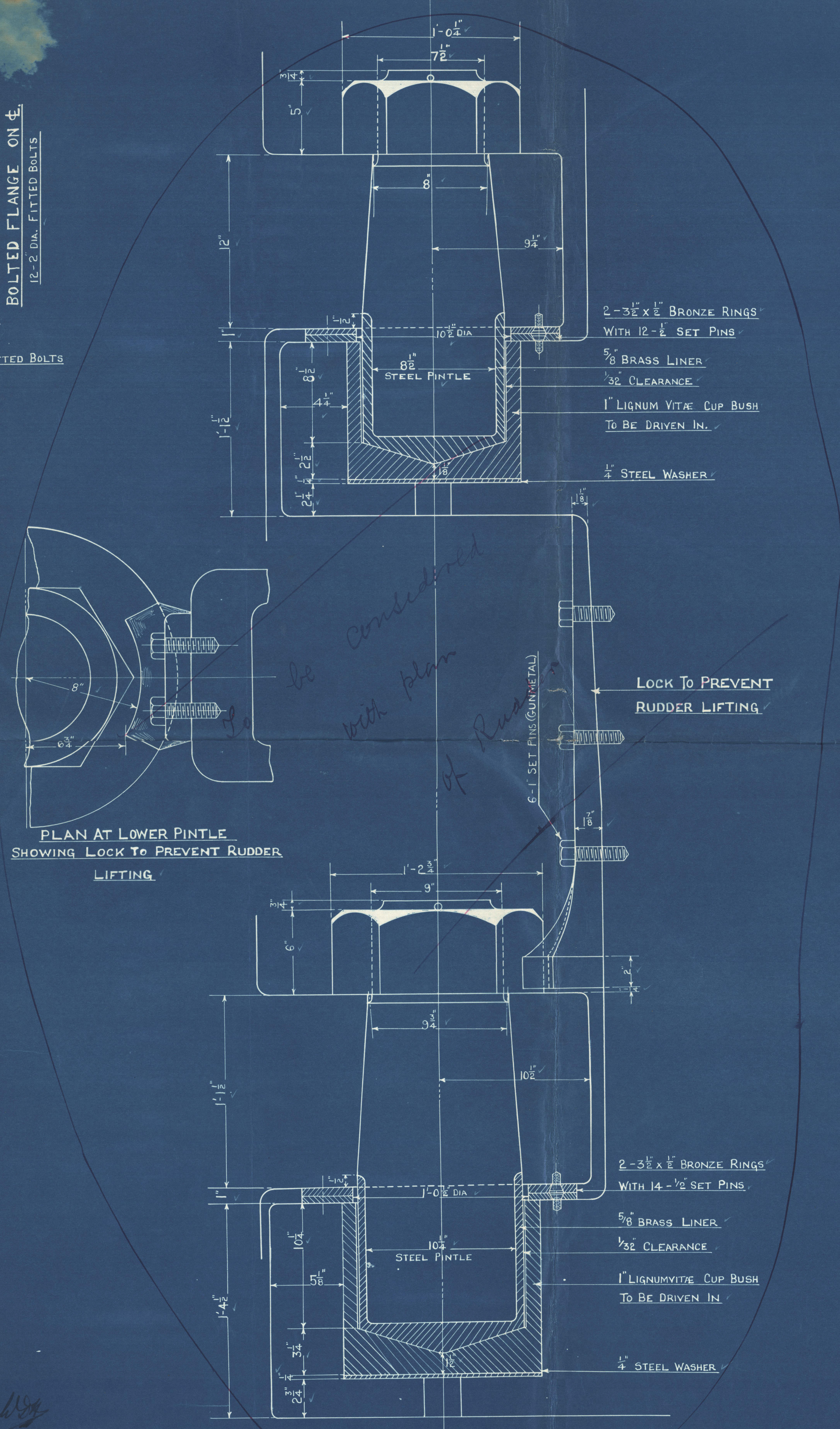
SECTION AT FRAME 88


Centre Of Propeller Tips 12'-0" Approximate
mean thickness to be 5 5/8"
About 4'-4 1/4"
3'-8"
1'-2 3/4"
To Suit Line Of Bossing
3/4" Check
1 1/2" Webs
3 Rows 1 1/8" Rivets 5 5/8" Apart C.s To C.s
10'-0"
8'-4"
6'-7"
Top Edge Bottom Edge
Top & Bottom Edges In The Same Vertical Plane
91
90
89
88
87

SECTION AT 'XX'


2 Rows 1 1/8" Rivets 5 5/8" Apart C.s To C.s
No 6 Section
No 7 Section
No 8 Section
2'-0" Rad
X
X
18'-4 1/2" Above Base
10'-0"
8'-4"
6'-7"
14'-0"
11'-10 1/2" At Aft End Of Bossing Approximate
11'-10 3/4" - Ford -
3'-5 1/4" At Aft End
3'-3 3/8" At Ford End

SECTION 3/4 AFT OF FRAME 87


1'-0 1/2"
7 1/2"
5"
8"
9 1/4"
12"
2-3 1/2" x 1/2" Bronze Rings With 12-1/2" Set Pins
10 3/4" Dia
8 3/8" Steel Pintle
5/8" Brass Liner
1/32" Clearance
1" Lignum Vitæ Cup Bush To Be Driven In.
1/4" Steel Washer
1/8"
Lock To Prevent Rudder Lifting
6-1" Set Pins (Gunmetal)
1 7/8"
1'-2 3/4"
9"
9 3/4"
10 3/4"
2-3 1/2" x 1/2" Bronze Rings With 14-1/2" Set Pins
1'-0 3/4" Dia
10 3/4" Steel Pintle
5/8" Brass Liner
1/32" Clearance
1" Lignumvitæ Cup Bush To Be Driven In
1/4" Steel Washer
1'-4 1/2"

PLAN AT LOWER PINTLE SHOWING LOCK TO PREVENT RUDDER LIFTING

To be considered with plan of Rudder

10.2.35

LLOYD'S REGISTER OF SHIPPING 18 FEB

003875-003883-0201

LR Lloyd's Register Foundation

1/

Cammell Laird & Co

No 1009, 1014, 1016

~~Wreck~~ Section
~~106~~

Rudder

S.S. "Dunedin Star" (1009)

LIVERPOOL.

Report No. 106781

S.S. Melbourne Star (1014)

LIVERPOOL.

Report No. 104955.

S.S. Brisbane Star (1016)

LIVERPOOL.

Report No. 108319

PLANS TRANSFERRED
TO SISTER VESSEL

003875-003883-0198

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1/3/35.

No 1009 + 1014
1016

RUDDER PLAN.

SCALES:- ½" & 1½" = 1 FOOT.

MATERIAL.

RUDDER STOCK	FORGED INGOT STEEL.
RUDDER FRAME	CAST MILD STEEL.
STRIP AT AFT. END	FORGED STEEL.
PINTLES	FORGED STEEL.

ALL TO LLOYDS TESTS & REQUIREMENTS.

PARTICULARS.

TOTAL RUDDER AREA		237·1	233½ SQ. FT.
RUDDER AREA ABAFT C.L. OF PINTLES		208·6	205 " ".
SPEED OF VESSEL			16 KNOTS.
MAX. ANGLE OF HELM			37½ DEGREES.
AREA COEFFICIENT	$\frac{515 \times \cdot 29{\cdot}5}{233{\cdot}5}$	$\frac{522{\cdot}5 \times 29{\cdot}5}{237{\cdot}1}$ 64·9	65.

Rudder Stock ½" OK Dia in Excess of Lloyds Rules

CAMMELL LAIRD & Co LTD
BIRKENHEAD.
FOR ENCLOSURE TO
Lloyds Register
DATE 20/2/35
SHIP DEPARTMENT.

NOTES.

PLATES & ANGLES SUPPLIED & FITTED BY SHIPBUILDER.

COUPLING BOLTS & NUTS TOGETHER WITH KEY FOR SCREWING UP, ALSO ACCESS PLATE & ½" BRONZE BEARING RING TO BE SUPPLIED & FITTED COMPLETE BY CONTRACTORS.

FORGED STEEL PINTLES FITTED WITH 5/8" BRASS LINER & COMPLETE WITH HEXAGONAL NUTS & SPLIT PINS TO BE SUPPLIED BY CONTRACTOR.

RUDDER FRAME TO BE BORED FOR PINTLES.

STOCK & FRAME TO BE BOLTED TOGETHER AT CONTRACTORS WORKS TO ENSURE ALIGNMENT BETWEEN UPPER STOCK & PINTLES.

SPACE BETWEEN PLATES TO BE LEFT EMPTY BUT INSIDE TO BE COATED WITH BITUMINOUS COMPOSITION.

THE FOLLOWING PARTS TINTED RED TO BE MACHINED.

BEARING SURFACES OF COUPLINGS.

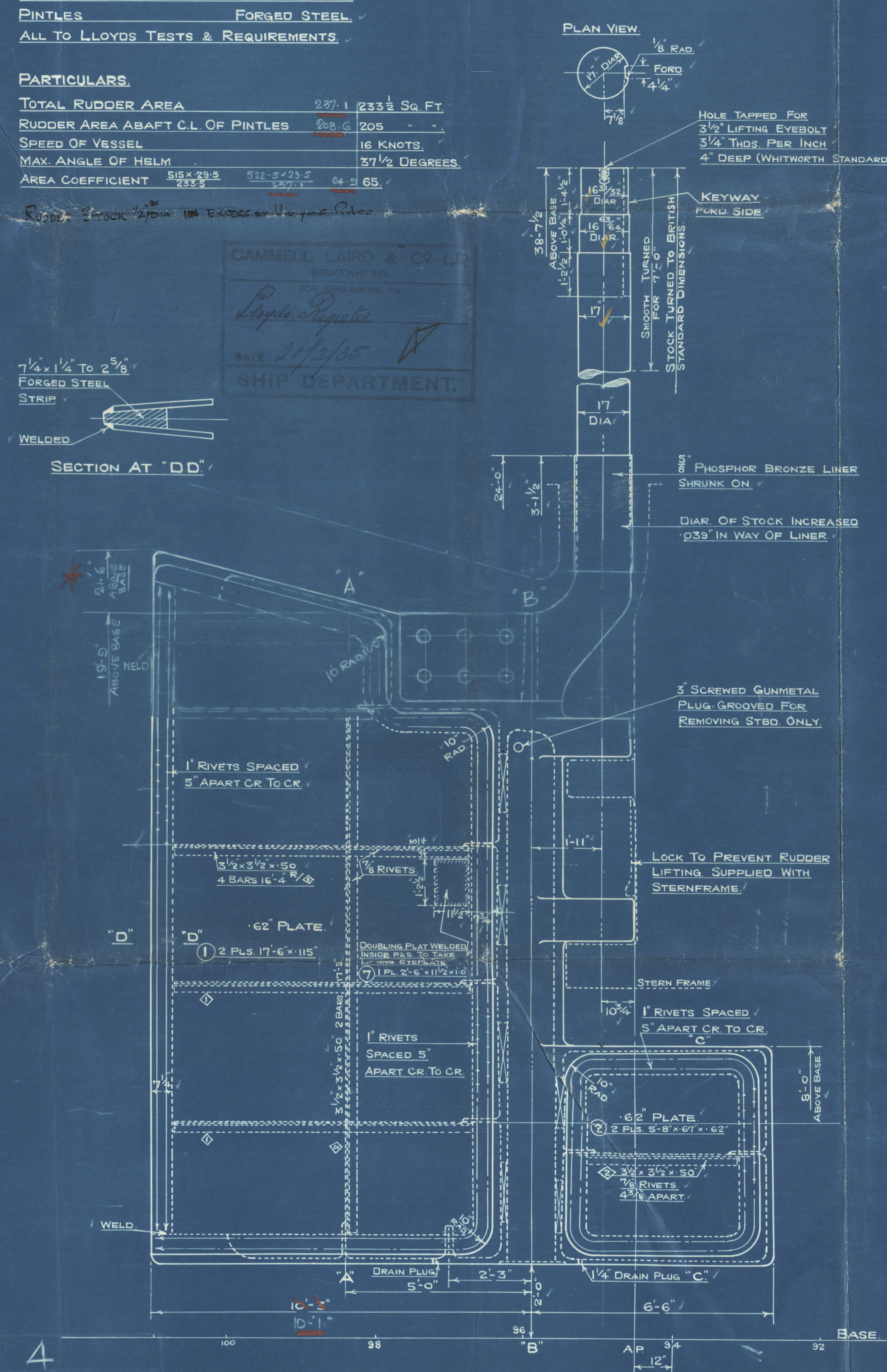
RUDDER STOCK & BRASS LINER.

TOP & BOTTOM OF ARMS IN WAY OF PINTLES

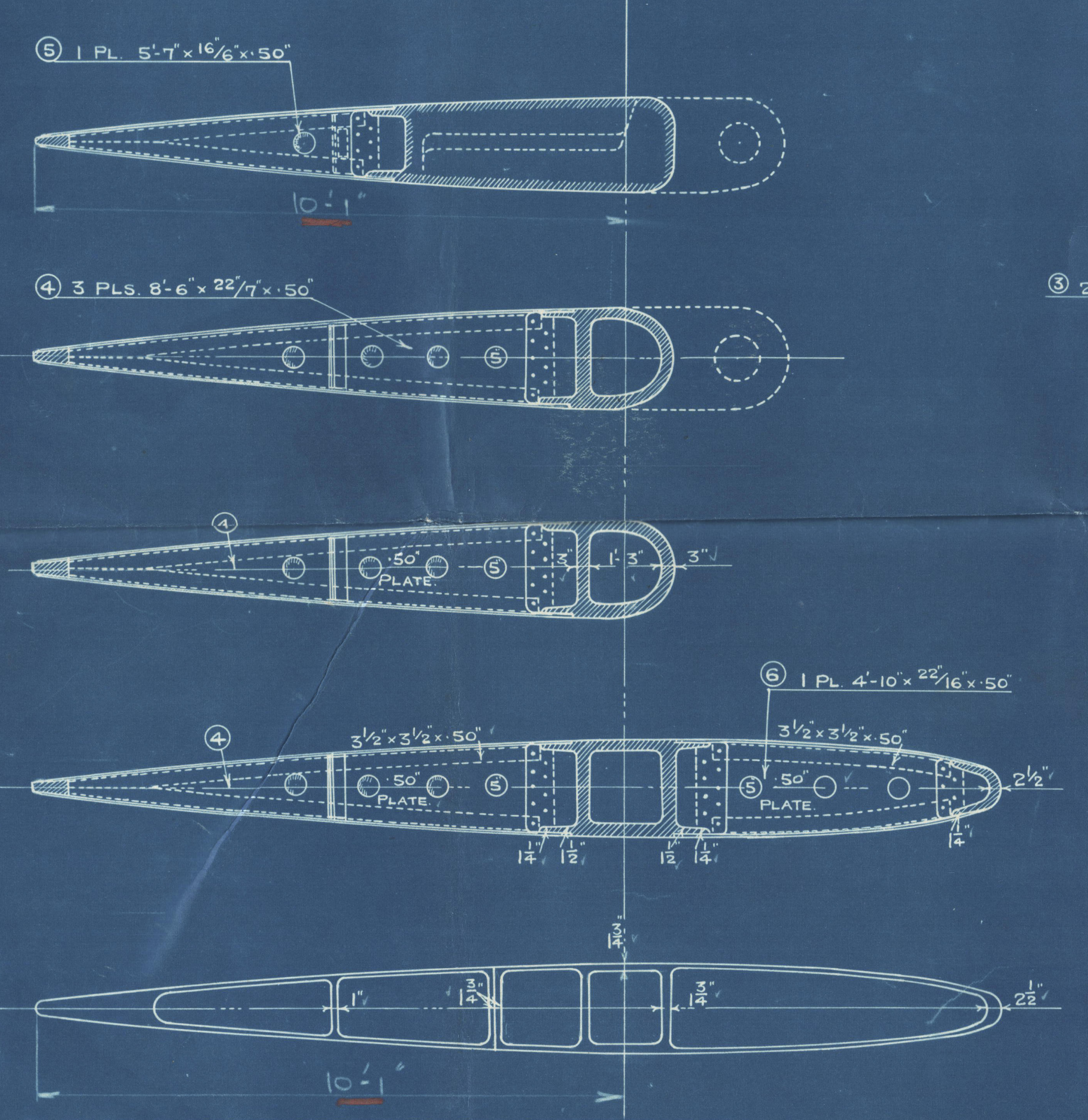
RECESSES & FACES OF COUPLING IN WAY OF BOLTS

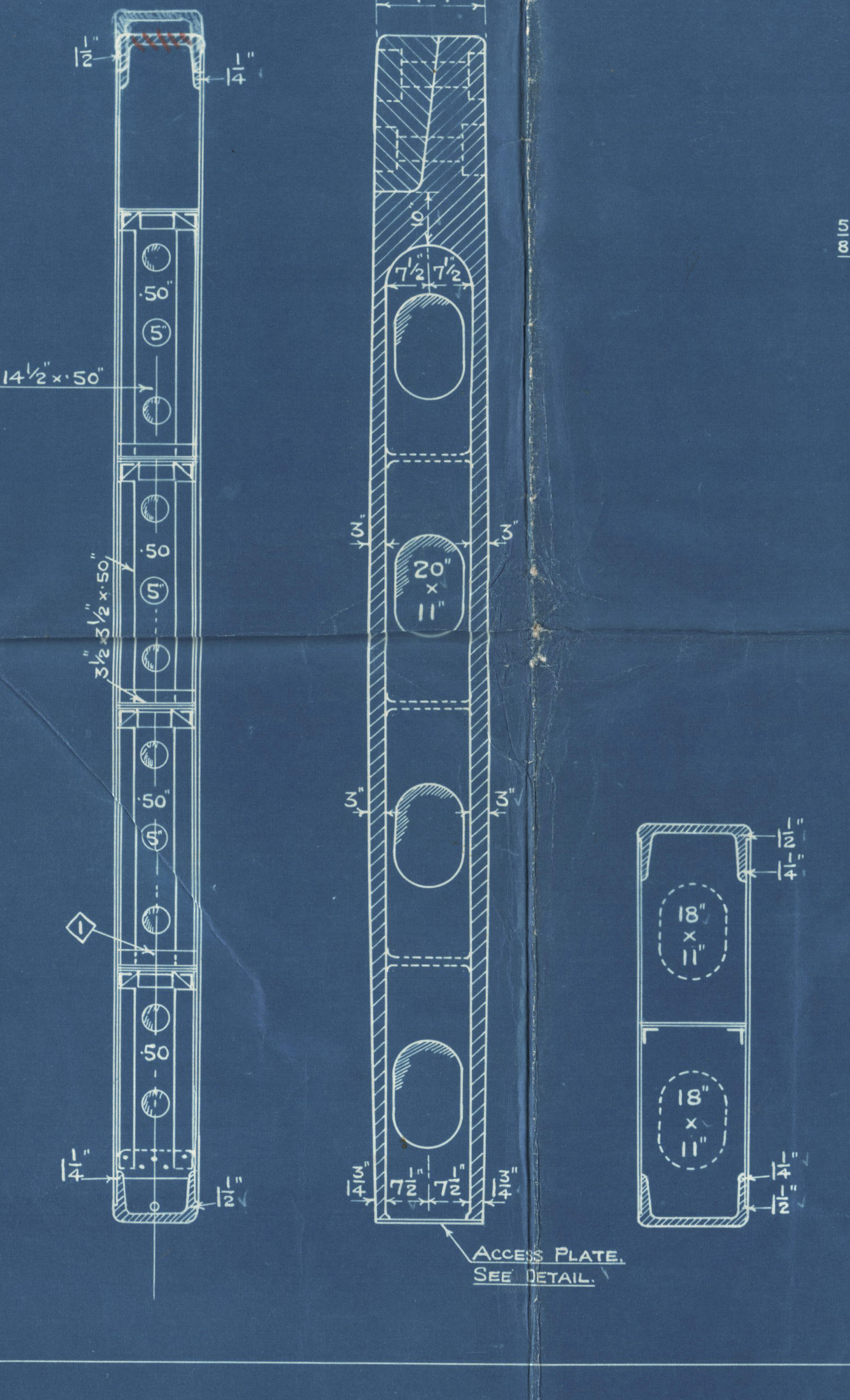
½" BRONZE BEARING RINGS.

SEE ALSO KEY PLAN & PLAN OF FULL SIZE SECTIONS.


PLAN VIEW.
17" DIAR
⅛" RAD.
FORD.
4¼"
7⅛
HOLE TAPPED FOR 3½" LIFTING EYEBOLT 3¼" THDS. PER INCH 4" DEEP (WHITWORTH STANDARD).
16 31/32" DIAR.
16 63/64 DIAR.
KEYWAY FORD. SIDE.
38'-7½ ABOVE BASE
1'-4½"
1'-0¼"
1'-2½"
17"
SMOOTH TURNED FOR 7'-0"
STOCK TURNED TO BRITISH STANDARD DIMENSIONS.
17" DIA
5/8" PHOSPHOR BRONZE LINER SHRUNK ON.
DIAR. OF STOCK INCREASED ·039" IN WAY OF LINER.
24'-0"
3'-1½"
7¼ x 1¼" TO 2⅝" FORGED STEEL STRIP
WELDED.
"A"
"B"
"C"
"D"
21'-6 ABOVE BASE
19'-9" ABOVE BASE
WELD
10" RADIUS
3" SCREWED GUNMETAL PLUG GROOVED FOR REMOVING STBD. ONLY.
10" RAD.
1" RIVETS SPACED 5" APART CR. TO CR.
3½ x 3½" x ·50 4 BARS 16'-4" R/④
⅞ RIVETS
1'-2½
11½"
7¾
1'-11"
LOCK TO PREVENT RUDDER LIFTING. SUPPLIED WITH STERNFRAME.
·62" PLATE.
① 2 PLS. 17'-6" x ·115"
DOUBLING PLAT WELDED INSIDE P&S. TO TAKE LIFTING EYEPLATE
⑦ 1 PL. 2'-6" x 11½ x 1·0
3½ x 3½ x ·50 2 BARS 17'-9"
1" RIVETS SPACED 5" APART CR. TO CR.
STERN FRAME
10¾
1" RIVETS SPACED 5" APART CR. TO CR.
8'-0" ABOVE BASE
·62" PLATE.
② 2 PLS. 5'-8" x ·67" x ·62"
② 3½ x 3½" x ·50"
⅞ RIVETS 4⅜ APART.
7¼"
WELD.
DRAIN PLUG.
2'-3"
5'-0"
2'-0"
1¼" DRAIN PLUG "C".
~~10'-3"~~
10'-1"
6'-6"
96
100
98
"B"
A.P.
94
92
12"
BASE.

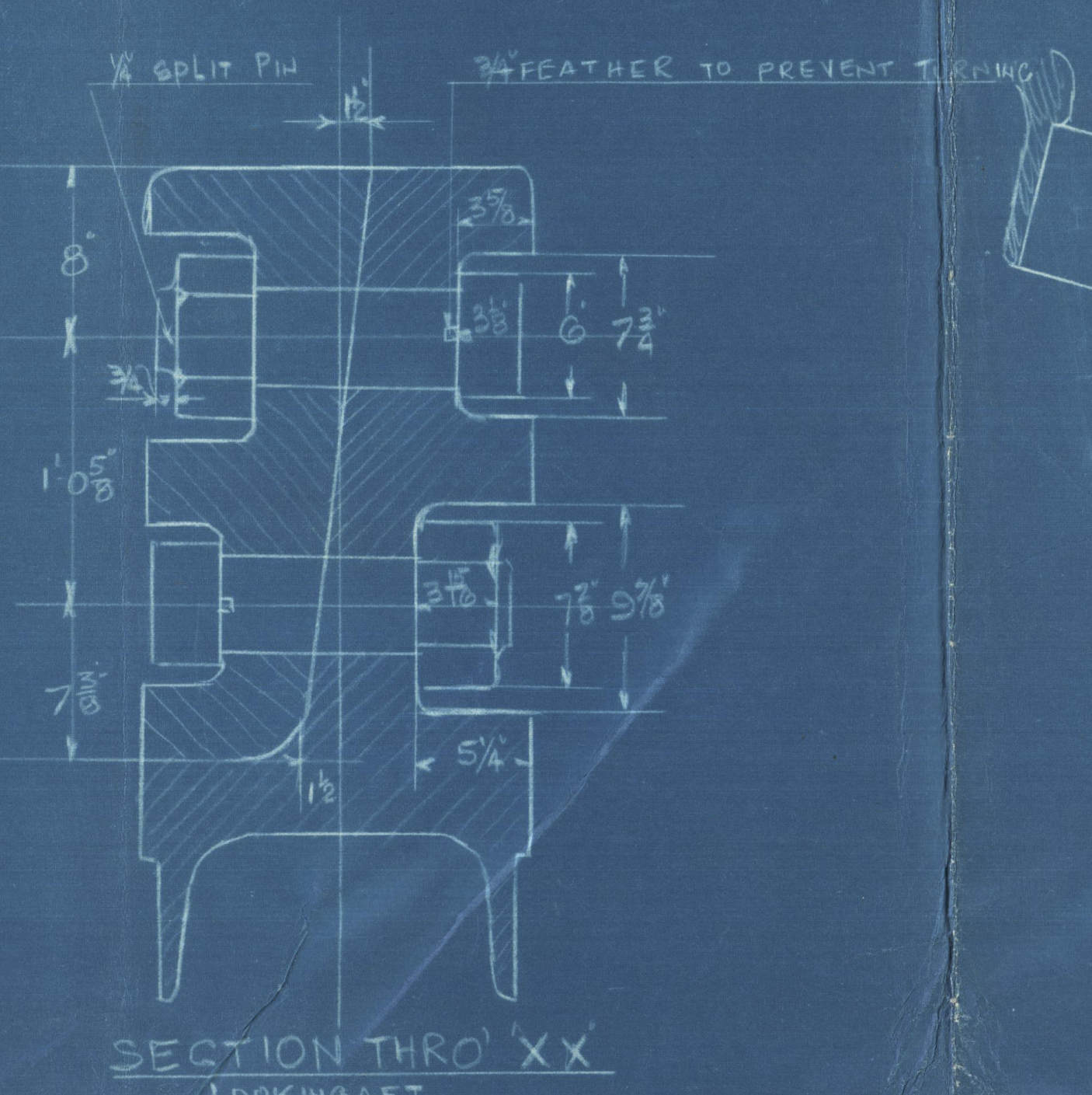
Section At "DD".


⑤ 1 PL. 5'-7" x 16/6" x ·50"
10'-1"
④ 3 PLS. 8'-6" x 22/7" x ·50"
④
·50" PLATE
1'-3"
3"
⑥ 1 PL. 4'-10" x 22/16" x ·50"
3½ x 3½ x ·50"
3½" x 3½" x ·50"
⑤ ·50" PLATE
2½"
1¼
1½
1"
1¾
2½"
10'-1"

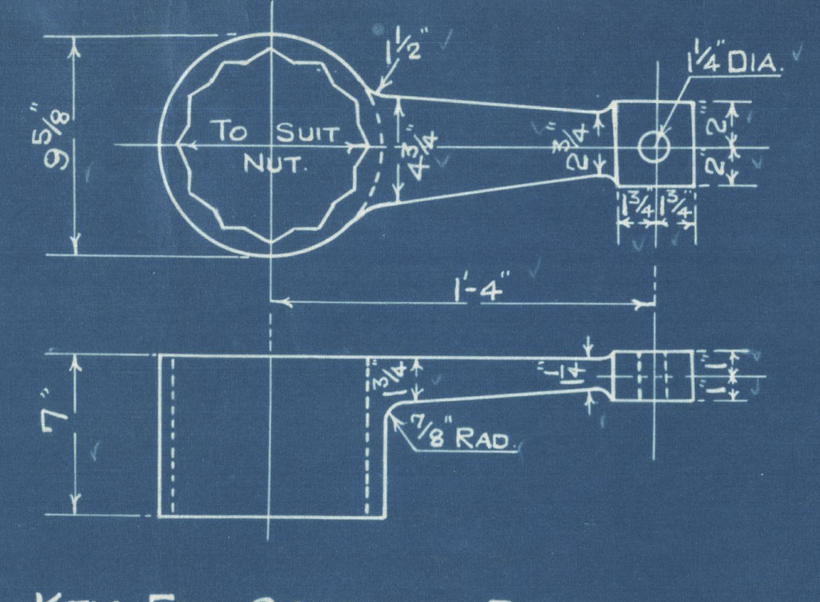

③ 2 PLS. 7'-6" x 14½" x ·50"
1½"
1¼"
3½ x 3½ x ·50
·50
⑤
①
1'-7"
7½
20" x 11"
3"
18" x 11"
ACCESS PLATE. SEE DETAIL.

LOOKING AFT

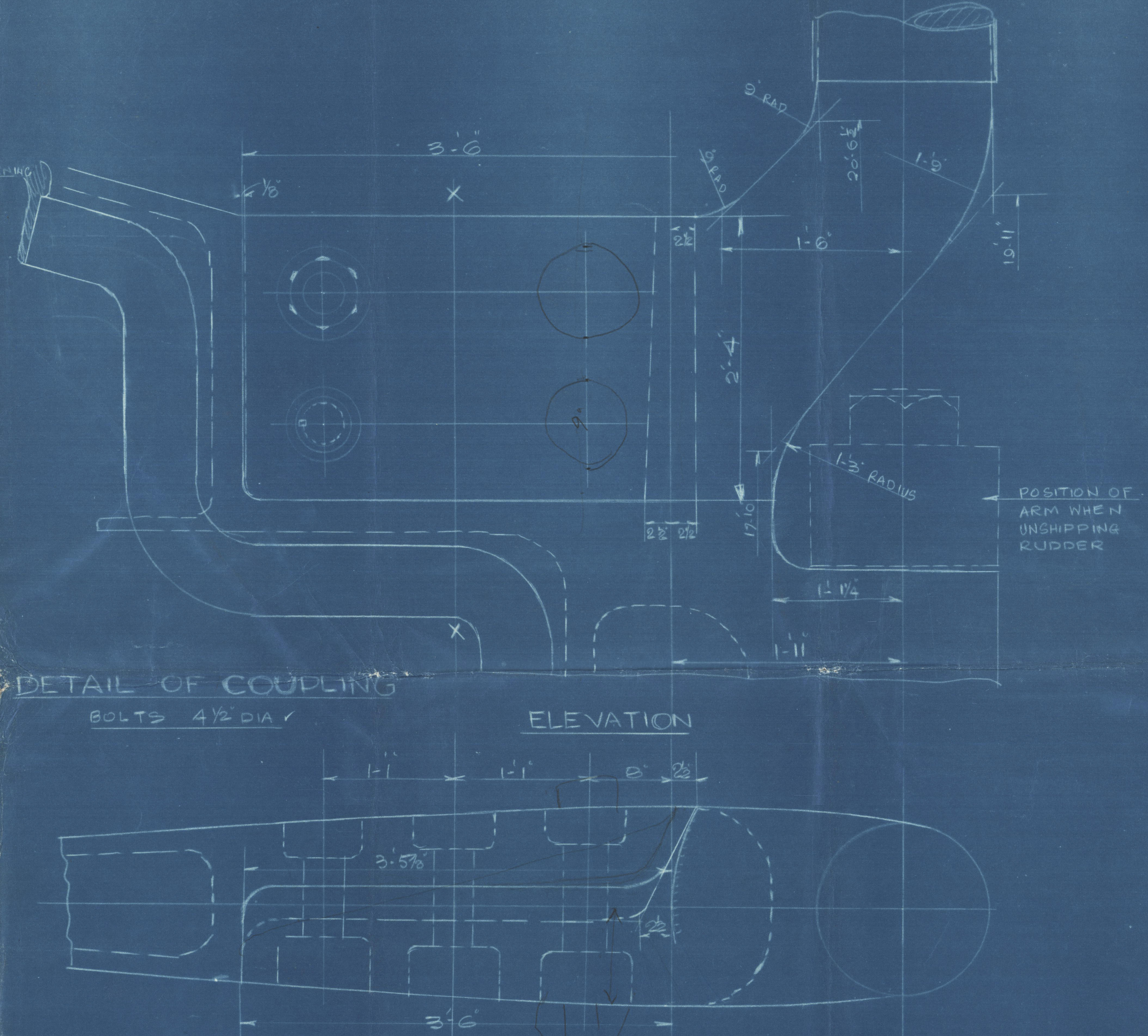
SECTION AT "AA" SECTION AT "BB" SECTION AT "CC"


¼ SPLIT PIN
¾" FEATHER TO PREVENT TURNING
8"
1'-0⅝"
7⅜"
3⅝
6
7¾
7⅞
9⅞
5¼
1½

SECTION THRO' XX
LOOKING AFT


TO SUIT NUT.
9⅝"
1½"
1¼ DIA.
1'-4"
7"
⅞" RAD.

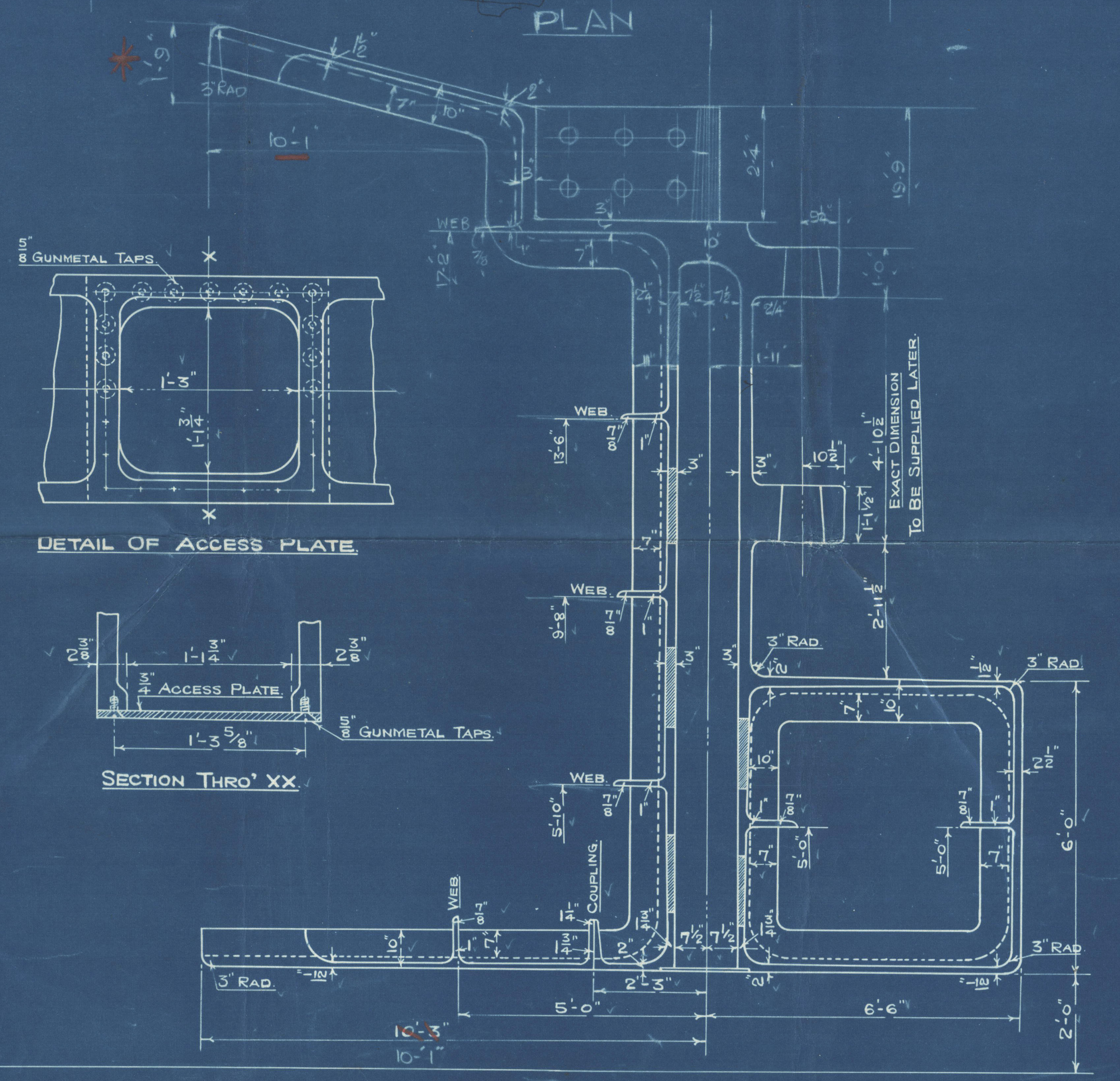
KEY FOR COUPLING BOLTS.


3'-6"
⅛"
9" RAD
9" RAD
2'-6½"
1'-9"
1'-6"
19'-11
2'-4"
2½
1'-3" RADIUS
POSITION OF ARM WHEN UNSHIPPING RUDDER
17'-10
1'-1¼"
1'-11"
X
1'-1"
8"
2½
3'-5⅝"
3'-6"

DETAIL OF COUPLING
BOLTS 4½" DIA

ELEVATION

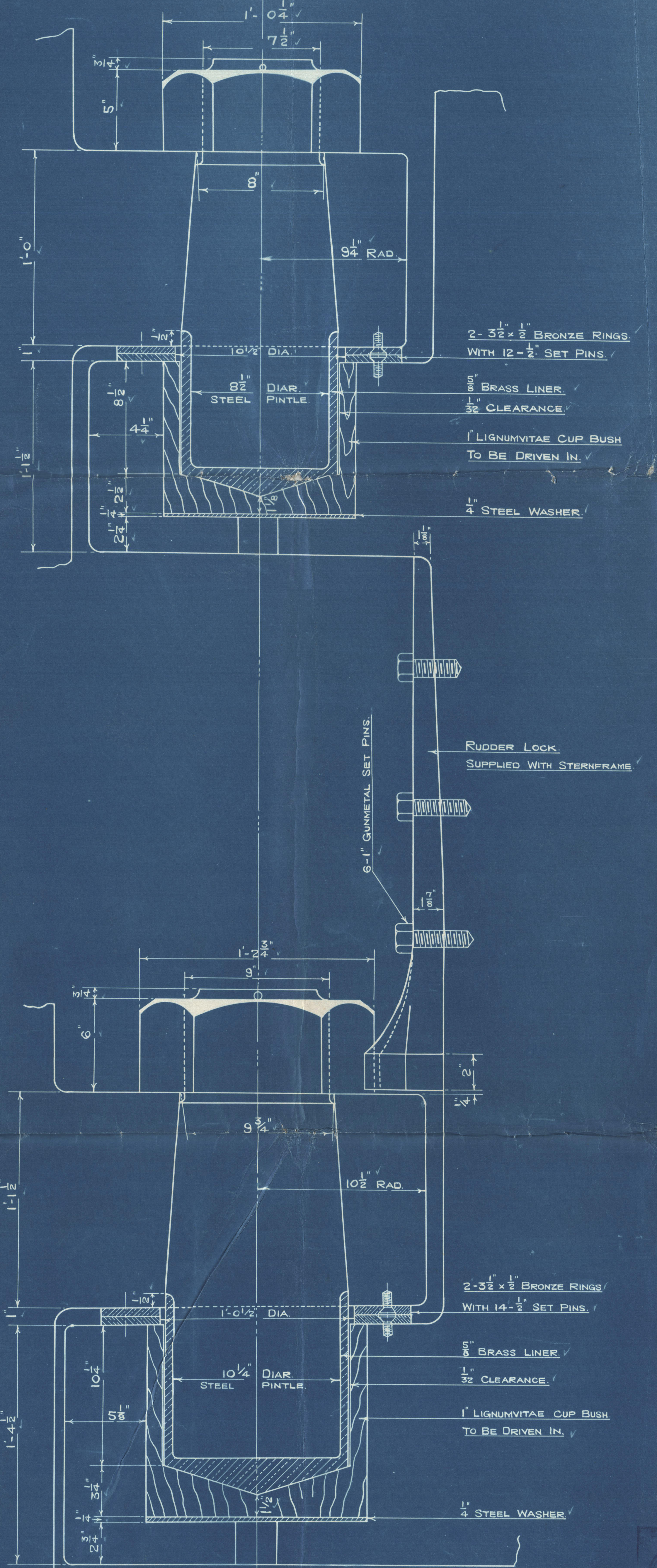
PLAN


1'-9"
3" RAD
½"
7"
10"
2"
10'-1"
2'-4"
19'-9
WEB
5/8" GUNMETAL TAPS
1'-3"
1'-1¾"
1'-1¼"
2⅜"
¾" ACCESS PLATE.
1'-3⅝"
5/8" GUNMETAL TAPS.
13'-6"
9'-8"
5'-10"
1'-11"
10½"
4'-10½"
EXACT DIMENSION TO BE SUPPLIED LATER.
1'-1½"
2'-11½"
3" RAD
COUPLING
6'-0"
5'-0"
5'-0"
2'-3"
5'-0"
6'-6"
~~10'-3"~~
10'-1"
2'-0"

DETAIL OF ACCESS PLATE.

SECTION THRO' XX

SECTION THRO' CASTING.


1'-0¼"
7½"
¾"
5"
8"
9¼" RAD.
1'-0"
½"
10½" DIA.
8½" DIAR. STEEL PINTLE.
8½
4¼"
1'-1½"
2½"
¼"
2¼"
1⅛"
2-3½" x ½" BRONZE RINGS. WITH 12-½" SET PINS.
5/8" BRASS LINER.
1/32" CLEARANCE.
1" LIGNUMVITAE CUP BUSH TO BE DRIVEN IN.
¼" STEEL WASHER.
RUDDER LOCK. SUPPLIED WITH STERNFRAME.
6-1" GUNMETAL SET PINS.
1⅞"
1'-2¾"
9"
¾
6"
2"
¼
9¾"
10½" RAD.
1'-1½"
1'-0½" DIA.
10¼" DIAR. STEEL PINTLE.
10¼
5⅛"
1'-4½"
3¼
1½"
2¼
2-3½" x ½" BRONZE RINGS WITH 14-½" SET PINS.
5/8" BRASS LINER.
1/32" CLEARANCE.
1" LIGNUMVITAE CUP BUSH TO BE DRIVEN IN.
¼" STEEL WASHER.

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DRAWN BY
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Lloyds (3) 20/2/35
Skoda (1)
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LLOYD'S REGISTER OF SHIPPING
21 FEB 1935
LIVERPOOL

26.2.35

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